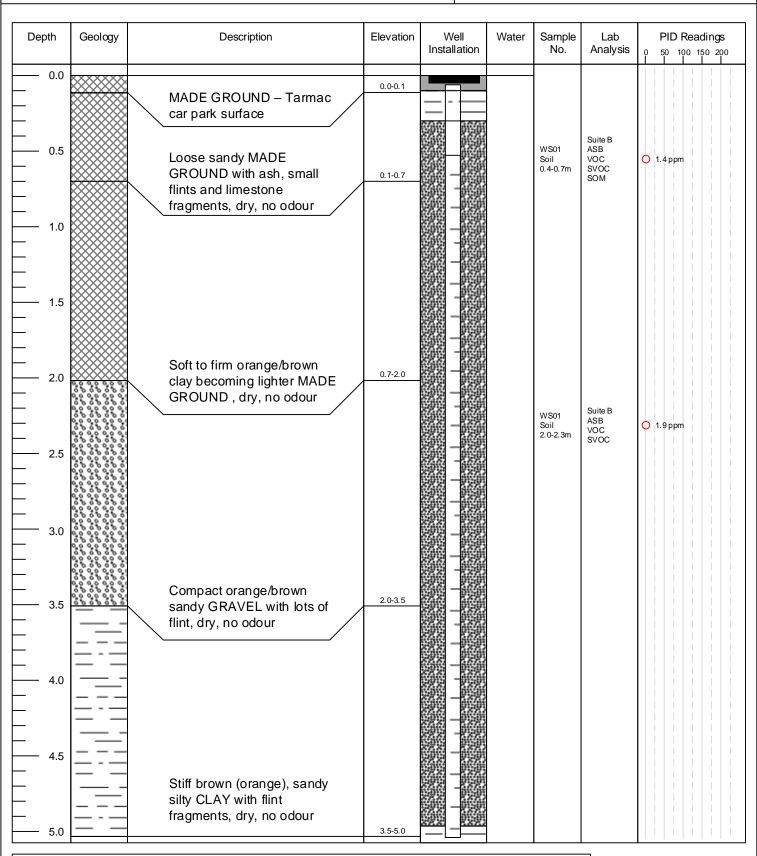
Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524046.573	WS01
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 26/06/18	212889.920	V V S O T
Client	Project Ref.	Datum	Sheet	18
Wheat Quarter Limited	016-1512	85.580 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		



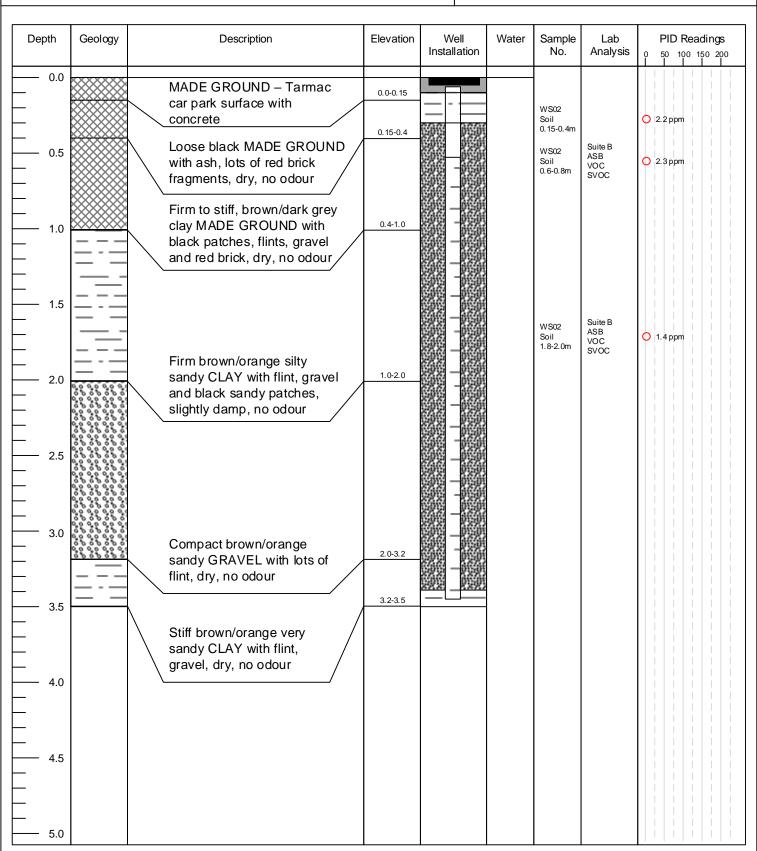
J F Hunts compound car park. Location cored.

End @ 5.0 m CLAY

No water encountered.

EAME Earth & Marine Environmental Consultants

Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524096.340	WS02
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 26/06/18	212948.924	V V O O Z
Client	Project Ref.	Datum	Sheet	1-18
Wheat Quarter Limited	016-1512	84.809 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		



Old Shredded Wheat employee car park. Location cored.

End @ 3.5 m CLAY.

No water encountered.



Project		Date	Co-ordinates	Reference
		Start: 27/06/18	524042.547	WS03
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 27/06/18	212962.252	V V C C C
Client	Project Ref.	Datum	Sheet	18
Wheat Quarter Limited	016-1512	85.364 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		

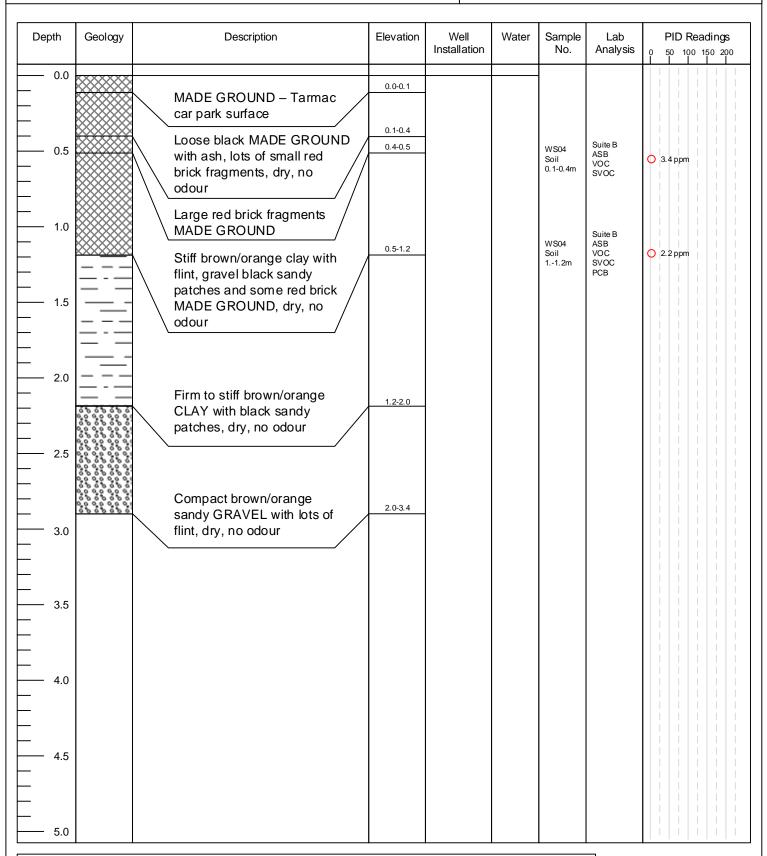
Depth	Geology	Description	Elevation	Well Installation	Water	Sample No.	Lab Analysis	PID Readings 0 50 100 150 200
0.0 0.5 1.0		Loose brown topsoil MADE GROUND with gravel/flint, red brick rootlets (grass), dry, no odour Black ashy layer MADE GROUND with flint, chalk, coal, red brick fragments dry, no odour	0.0-0.4			WS03 Soil 0.5-0.8m	Suite B ASB VOC SVOC SOM	O 2.6 ppm
1.5						WS03 Soil 1.5-1.8m	Suite B ASB VOC SVOC	O 2.1 ppm
2.5 	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Firm brown/orange sandy CLAY with flint/gravel, dry, no odour Compact brown/orange sandy GRAVEL with flint, dry, no odour Firm brown/orange sandy CLAY with flint/gravel, dry, no odour Compact brown/orange sandy GRAVEL with flint, dry no odour	2.5-2.7 2.7-3.0 3.0-3.4					
		Stiff brown/orange sandy CLAY, dry, no odour	3.4-4.0					

 $\label{lem:compound} \textbf{Grassed} \ area \ near \ to \ temporary \ Hollywell \ Compound.$

End @ 4.0 m CLAY.



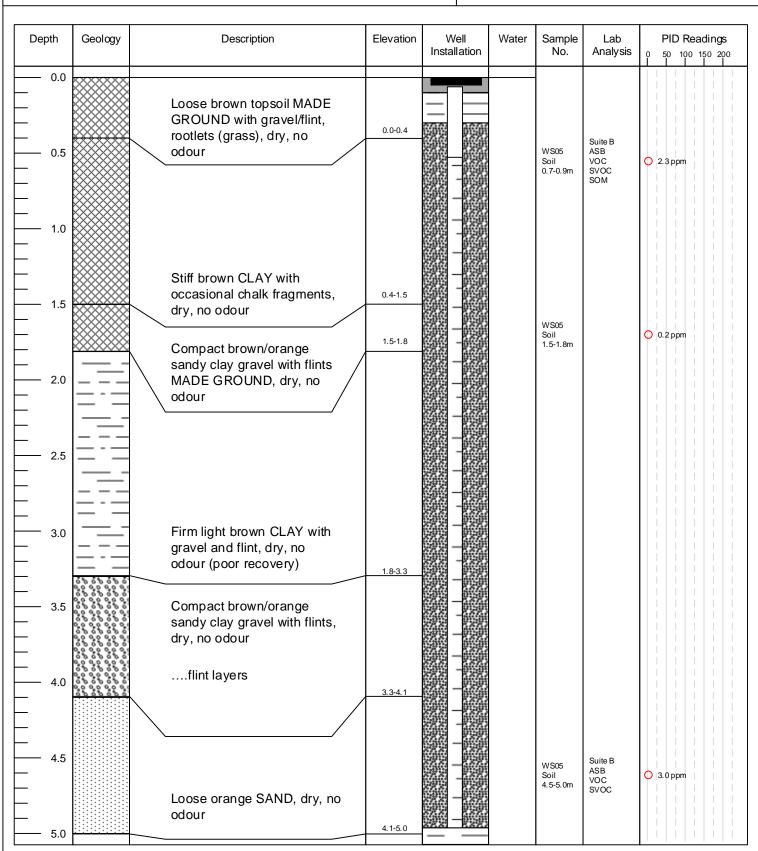
Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524107.982	WS04
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 26/06/18	213011.881	V V 304
Client	Project Ref.	Datum	Sheet	1-18
Wheat Quarter Limited	016-1512	84.288 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		



Old Shredded Wheat employee car park near to tree line. Location cored. End @ 3.4 m GRAVEL. Unable to progress past 3.4 m due to large flints. No water encountered.



Project Co-ordinates Start: 27/06/18 **WS05** 524057.586 213021.924 Wheat Quarter (Shredded Wheat Development), WGC, Northern Site Finish: 27/06/18 Wheat Quarter Limited 016-1512 84.978 m 01 01 of Plant and Equipment Used Logged by RP Drilling Windowless Tracked Rig MS



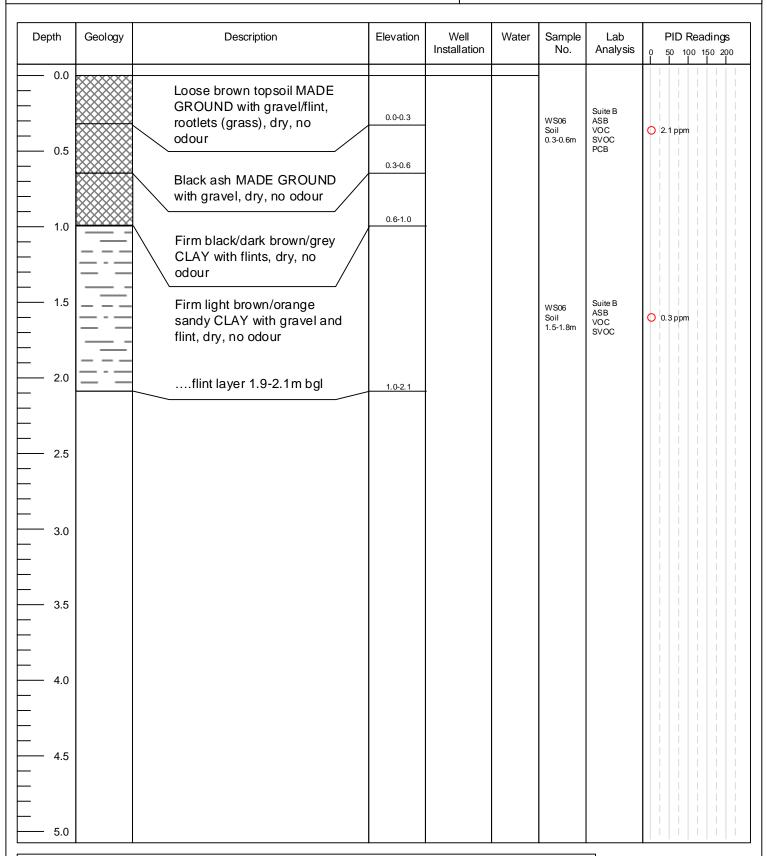
Remarks

Grassed area near to PW Gates access road.

End @ 5.0 m SAND.



Project		Date	Co-ordinates	Reference
		Start: 27/06/18	524101.982	WS06
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 27/06/18	213046.090	V V 300
Client	Project Ref.	Datum	Sheet	1-18
Wheat Quarter Limited	016-1512	84.674 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		

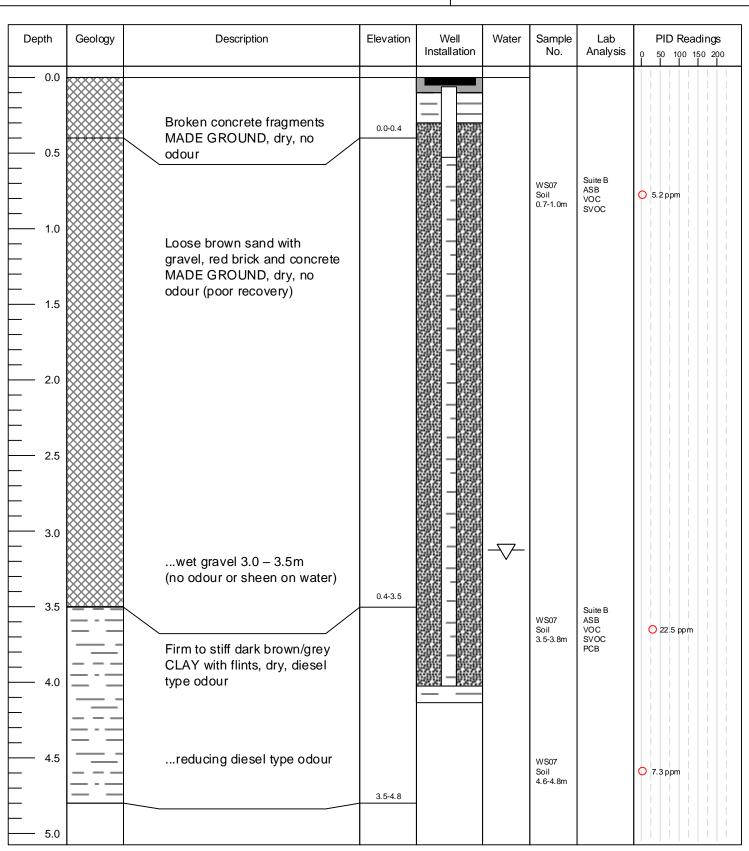


Grassed area near to PW Gates access road - northern end.

End @ 2.1 m CLAY.



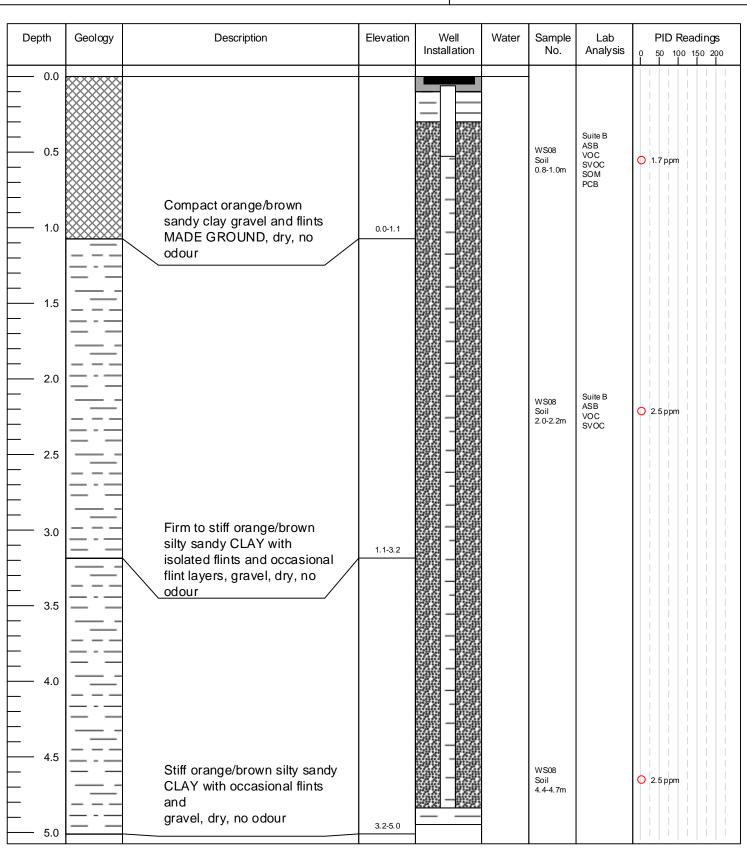
Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524149.315	WS07
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 26/06/18	213028.756	VV301
Client	Project Ref.	Datum	Sheet	1-18
Wheat Quarter Limited	016-1512	85.081 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		



Adjacent to 11kV substation in area of historic ASTs. Location cased due to unstable ground. Well excavated twice due to ground conditions. End @ 4.8 m CLAY. Wet gravels encountered during drilling.



Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524180.923	WS08
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 26/06/18	212988.054	V V C C C
Client	Project Ref.	Datum	Sheet	18
Wheat Quarter Limited	016-1512	83.957 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		

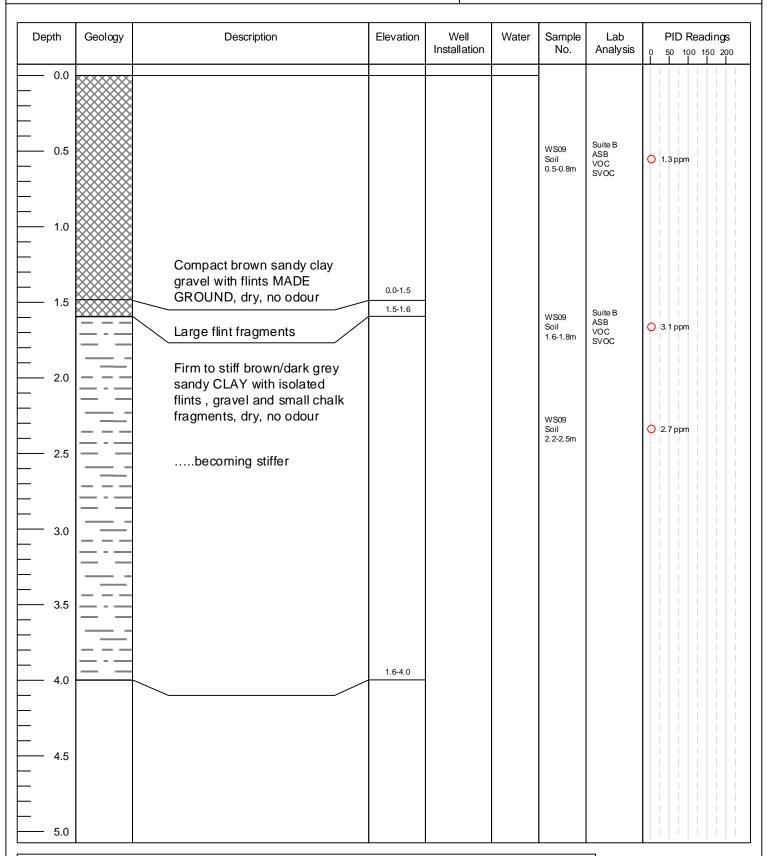


Near edge of Grade II listed building.

End @ 5.0 m CLAY.



Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524163.897	WS09
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 26/06/18	212944.531	VV303
Client	Project Ref.	Datum	Sheet	1-18
Wheat Quarter Limited	016-1512	83.947 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		

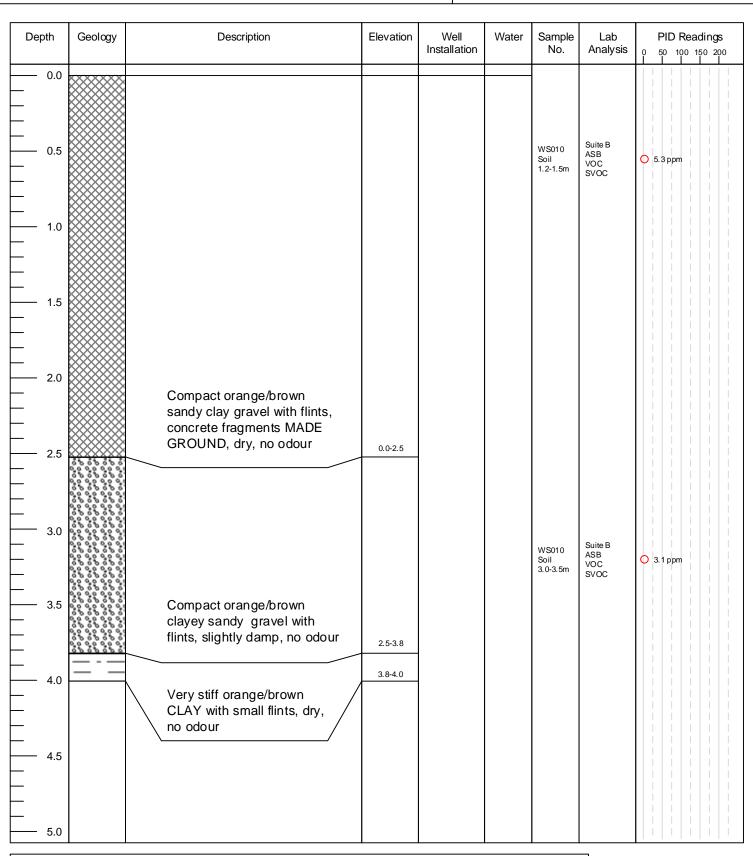


Near edge of Grade II listed building.

End @ 4.0 m CLAY.



Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524167.353	WS10
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 26/06/18	212912.194	
Client	Project Ref.	Datum	Sheet	-18
Wheat Quarter Limited	016-1512	85.194 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		



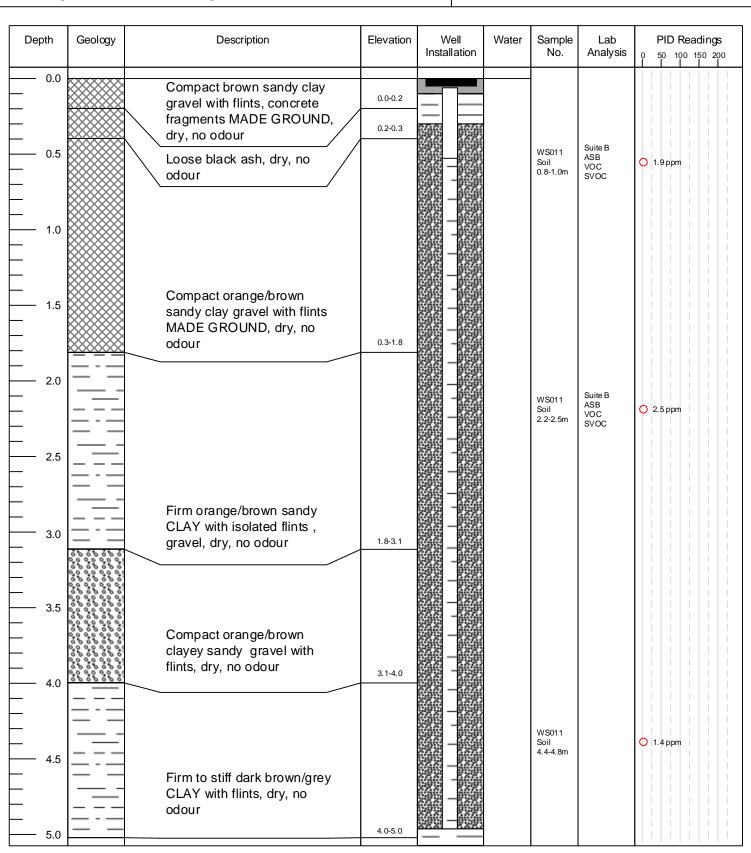
Middle of demolished silos.

End @ 4.0 m CLAY. Poor recovery 1.0-2.0 m bgl.

No water encountered during drilling.

EAME
Earth & Marine Environmental Consultants

Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524191.746	WS11
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 26/06/18	212880.509	
Client	Project Ref.	Datum	Sheet	-18
Wheat Quarter Limited	016-1512	85.683 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		

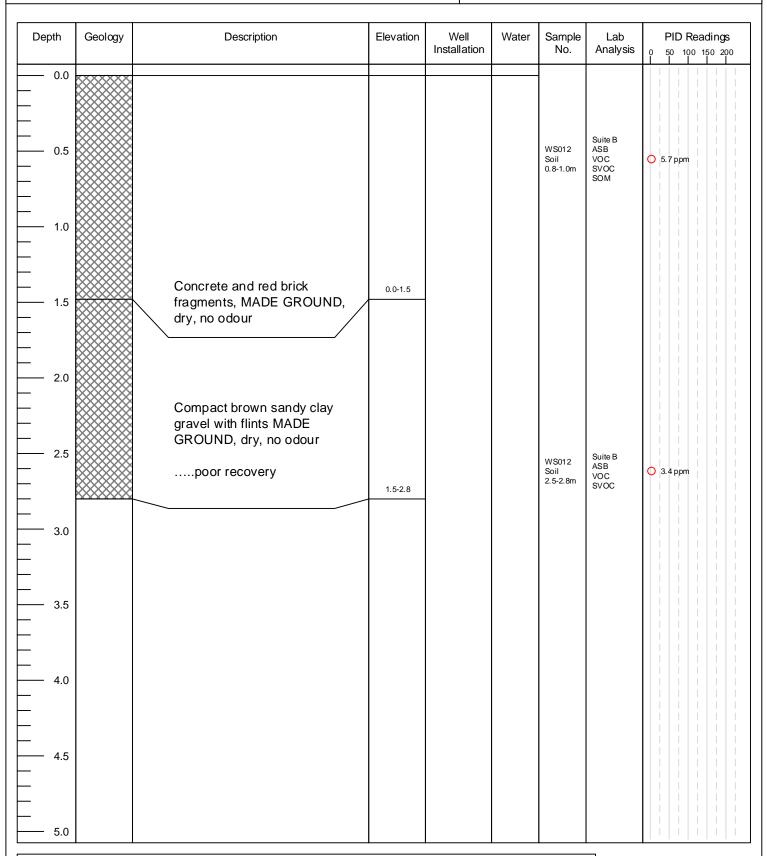


Near to Hydeway fence line.

End @ 5.0 m CLAY.



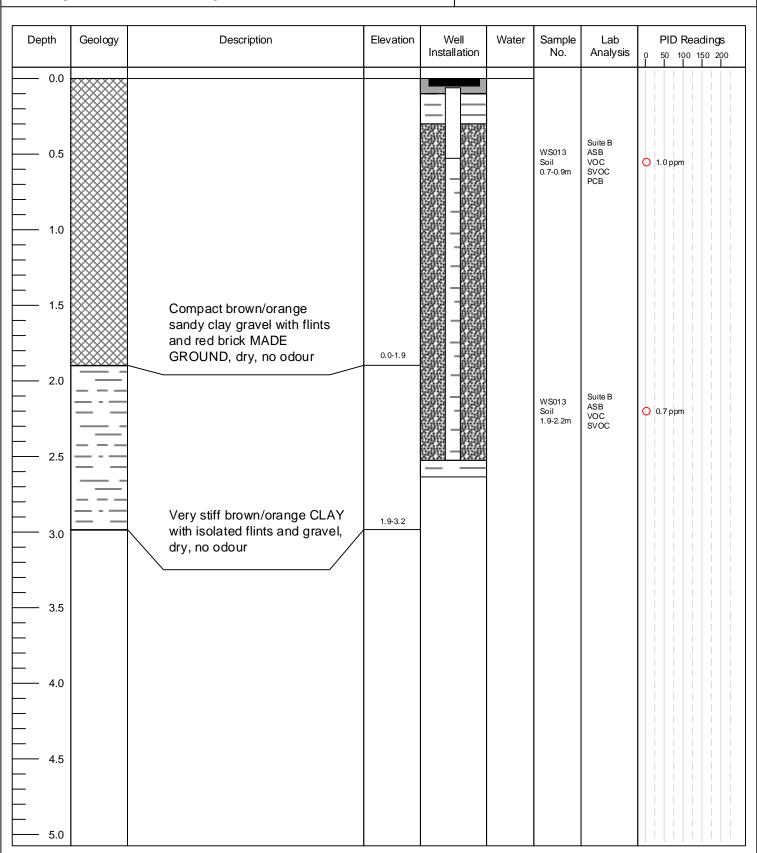
Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524234.490	WS12
Wheat Quarter (Shredded Wheat Development), WGC, Northern Site		Finish: 26/06/18	212877.197	V V O 1 Z
Client	Project Ref.	Datum	Sheet]_ 1 2
Wheat Quarter Limited	016-1512	83.938 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		



Near to Broadwater Road and Hydeway junction. End @ 2.8 m Sandy Gravel. Poor recovery after 2.0 m bgl. No water encountered during drilling.



Project		Date	Co-ordinates	Reference
		Start: 26/06/18	524207.105	WS13
Wheat Quarter (Shredded Wheat Development), WGC, Northe	rn Site	Finish: 26/06/18	212915.244	
Client	Project Ref.	Datum	Sheet	-18
Wheat Quarter Limited	016-1512	83.161 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		



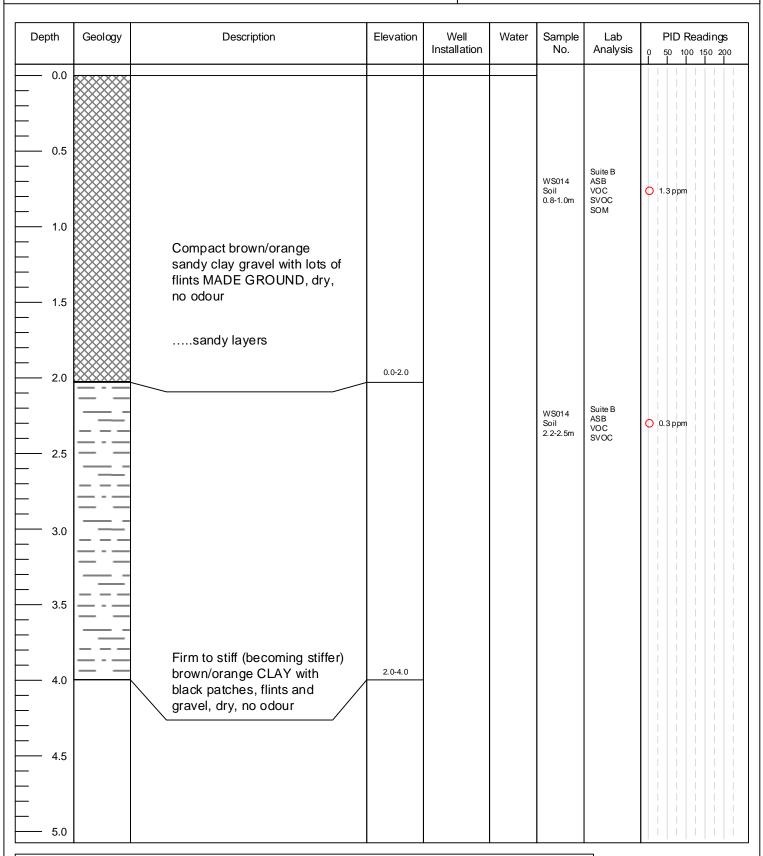
Area where UST was removed.

End @ 3.0 m CLAY (flint obstruction).

No water encountered during drilling.

EAME Earth & Marine Environmental Consultants

Project		Date	Co-ordinates	Reference
		Start: 27/06/18	524206.158	WS14
Wheat Quarter (Shredded Wheat Development), WGC, Norther	rn Site	Finish: 27/06/18	212947.845	
Client	Project Ref.	Datum	Sheet]_ 1 2
Wheat Quarter Limited	016-1512	83.972 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		



Near to centre of now demolished Shredded Wheat factory.

End @ 4.0 m CLAY – flint obstruction.



Project		Date	Co-ordinates	Reference
		Start: 27/06/18	524259.168	WS15
Wheat Quarter (Shredded Wheat Development), WGC, Norther	rn Site	Finish: 27/06/18	212970.482	
Client	Project Ref.	Datum	Sheet]_ 1 2
Wheat Quarter Limited	016-1512	83.997 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		

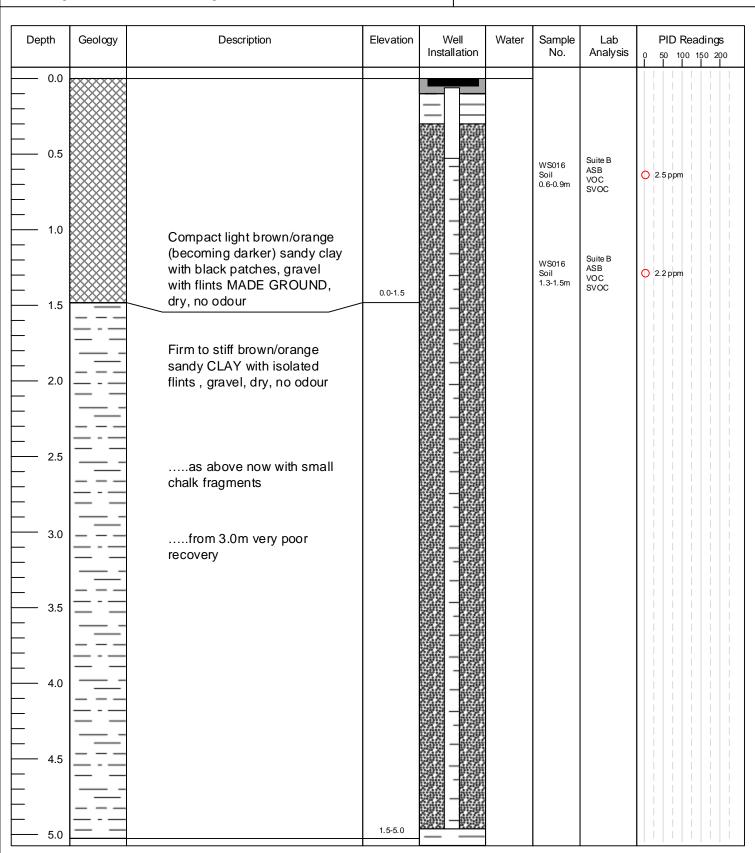
Depth	Geology	Description	Elevation	Well Installation	Water	Sample No.	Lab Analysis	PID Readings 0 50 100 150 200
0.0		Compact light brown/orange sandy clay gravel with flints MADE GROUND, dry, no odour				WS015 Soil 0.5-0.8m	Suite B ASB VOC SVOC SOM	○ 0.3 ppm
1.0		large red brick fragments	0.0-1.5					
2.0		Firm brown/orange clayey sandy gravel with flints, damp to wet, no odour	1.5-2.1			WS015 Soil 1.5-1.8m	Suite B ASB VOC SVOC SOM	1.9 ppm
2.5								
3.0								
3.5		Firm to stiff brown/dark grey/ orange sandy CLAY with isolated flints, gravel and small chalk fragments, dry, no odour	2.1-4.0					
4.5								
5.0								

Near to eastern edge of site with Broadwater Road.

End @ 4.0 m CLAY.



Project		Date	Co-ordinates	Reference
		Start: 27/06/18	524249.497	WS16
Wheat Quarter (Shredded Wheat Development), WGC, Northe	rn Site	Finish: 27/06/18	213009.934	
Client	Project Ref.	Datum	Sheet	-18
Wheat Quarter Limited	016-1512	83.907 m	01 of 01	-10
Plant and Equipment Used		Logged by		
RP Drilling Windowless Tracked Rig		MS		



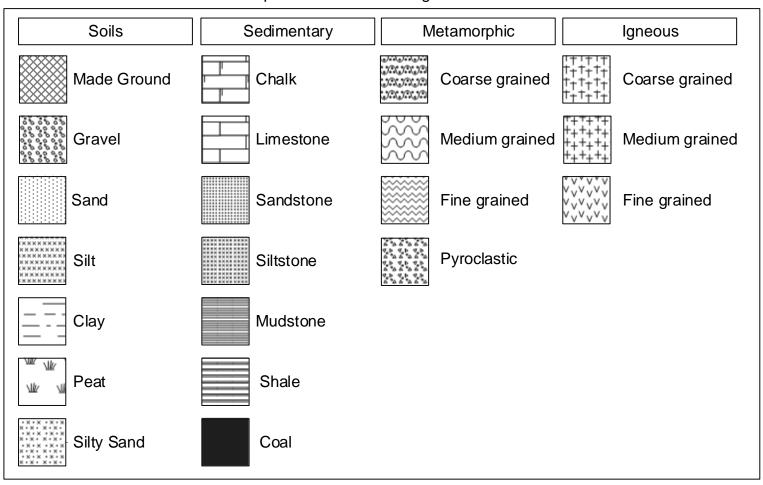
Near to northern edge of site with Bridge Road. End @ 5.0 m CLAY.

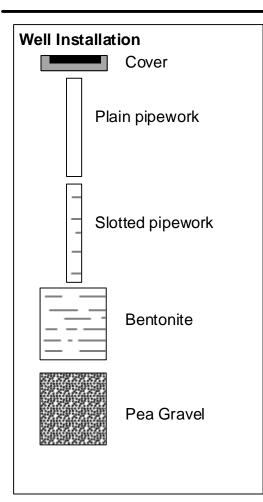


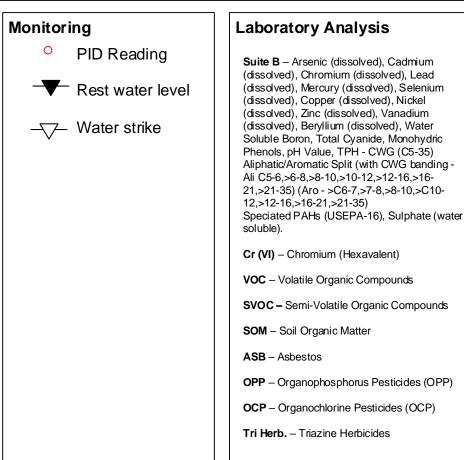


Symbols for Soils and Rocks

British Standards Institute. BS 5930:2015 Code of practice for site investigations.









Broadwater Road, Wel	iwyn Ga	raen Ci	ty	2	342.18	}	BH408						
CABLE PERCUSSION B	OREHOLE	LOG		Date From / 15/10/2	To: 2014 - 16/10	/2014	Clie		n Hill	Developn	nents Ltd		
			监	CASING	REDUCED		Samp	ole Details		Test R	esults	E ≅	
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	5	SPT N Value	e/Drive mm	Backfill Details	
MADE GROUND: Concrete.					<i>85.23</i> 0.40	D	1	0.50					
MADE GROUND: Brown slightly sandy slight clay. Gravel is subangular to subrounded fine flint and brick. Sand is fine to coarse.					(0.60) 84.63 1.00		2	1.00					
Stiff orange brown slightly sandy slightly grav Gravel is angular to subrounded fine to coars s fine to coarse.(LOWESTOFT FORMATION	se flint. Sand					D	3	1.50 - 2.00 1.50 -	1.95	CPT I 2,3/4,			
						B U	1	2.50 - 3.00 2.50 - 2.95		U=50/	0mm		
					(5.40)	D	4	3.50 - 4.00 3.50 -	3.95	CPT 1 2,3/2,			
						U	2	4.50 - 4.95		U=40/3	83mm		
						D	5	5.00					
Loose to medium dense orange brown sandy		000			79.23 6.40	D B	6	6.00 - 6.50 6.00 -	6.45	SPT I 2,3/4,			
subrounded fine to coarse flint GRAVEL. Sar o coarse. Occasional flint cobbles.(KESGRA CATCHMENT SUBGROUP)				(150mm)		D	7	7.50 - 8.00 7.50 -	7.95	CPT 2,2/2,			
						D	8	9.00 - 9.50 9.00 -		CPT I 2,3/4,			
REMARKS :		lo .~ , ~ F			HISELLING			WATER	LEVE		RVATIONS		
. Engineer verified logged in general accord 2. Area CAT scanned prior to excavation. 3. Borehole remained dry on completion. 4. Installed with HDPE standpipe to 20.00m b	ogl.	930:2010.		From		Time aken		Date	Time		Standing Level	1 -	
. Coordinates estimated due to no GPS sign	nal.			N _C	NDERTAND			NO	WATE	T. T.			
					EHOLE DIA 50mm to 20		R	CASING D 150mm t	IAIVIE	IEK L	EPTH SE	ALEC	
All measurements in metres	0m/page	Scale: 1:62.5	0					National G		 P	age 1 of 3		
uriless offierwise stated	ordinates / Level (m E: 52416			Logge		ına Le		Ordnance Checked By: W	Datur 'C	п	roved By:		



Broadwater Road, Welwyn Garden City			y	Project No: 2342.18				e ID:	В	H408	
CABLE PERCUSSION				Date From /			Clie		n Hill D	evelopments Ltd	
		1	R.	CASING	REDUCED		Sam	ole Details		Test Results	≣ s
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	SP	PT N Value/Drive mm	Backfill Details
Loose to medium dense orange brown sar subrounded fine to coarse flint GRAVEL. S to coarse. Occasional flint cobbles.(KESG CATCHMENT SUBGROUP)(BH Continued	Sand is medium RAVE				(8.50)	D	9	10.50 - 11.0 10.50 - 10		CPT N=20 3,4/4,5,5,6	
						D	10	12.00 - 12.5 12.00 - 12		CPT N=23 4,4/5,5,6,7	
						D	11	13.50 - 14.0 13.50 - 13		CPT N=17 3,4/4,5,4,4	
Recovered as structureless CHALK comp with rare orange veins sandy gravelly silt. It to subangular fine to medium extremely we cream. Sand is fine to coarse. Rare subrougravels and cobbles of rinded flint through	Gravel is angula eak low density unded coarse	0.0.00		14.90	70.73 14.90	B D	3 12	14.90 15.00 - 15.4 15.00 - 15		CPT N=3 1,0/1,0,2,0	
(LEWES NODULAR/SEAFORD CHALK F	ORMATION)					D	13	16.50 - 17.0 16.50 - 16		SPT N=7 1,1/1,2,2,2	
					(5.10)	D	14	18.00 - 18.5 18.00 - 18		SPT N=10 1,1/2,2,3,3	
					65.63 20.00		15	19.50 - 20.0 19.50 - 19	9.95	SPT N=8 2,3/2,2,2	
REMARKS:		200-0040			HISELLING Depth 7	ime		WATER		Water Standing	
 Engineer verified logged in general accordance Area CAT scanned prior to excavation. Borehole remained dry on completion. Installed with HDPE standpipe to 20.00r Coordinates estimated due to no GPS s 	m bgl.	93U:ZUTU.		From		METE	ER	NO CASING D	IAMET	Strike Level ENCOUNTERED:	Depth
			_								
All measurements in metres unless otherwise stated	10m/page	Scale: 1:62.50)					National Gri Ordnance		Page 2 of 3	
		nAOD): 61 N: 212906 /el: 85.63		Logged				Checked By:		Approved By:	



Project: Broadwater Road, W	elwyn Gar	den C	Sity	Project No:	342.18	 8	Hole	ID:	BH	1408	
CABLE PERCUSSION				Date From /			Clien			velopments Ltd	
			<u> </u>	CASING	REDUCED		Samp	ole Details		Test Results	
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness	TYPE	REF	Depth	SPT	N Value/Drive mm	Backfill Details
Borehole complete at 20.00m bgl.			Ē								
			: F					I			
			- E					I			
			: F					I			
			: E					I			
			: F					I			
			: F					I			
			: F					I			
			. E					I			
			: F					I			
			: E					I			
	ļ		- F								
	ļ		į Į								
	ļ		<u>-</u>					I			
	ļ		į Į								
			: E					I			
			: F					I			
			: E					I			
			: F					I			
			: E					I			
			: 					I			
			: E					I			
REMARKS :					CHISELLIN Depth	NG Time	7		Time	DBSERVATION Water Standing	
 Engineer verified logged in general according Area CAT scanned prior to excavation. Borehole remained dry on completion. 	ordance to BS 5930):2010.		From	To '	Taken	+	Date			
Installed with HDPE standpipe to 20.00r Coordinates estimated due to no GPS s	m bgl. signal.			NC	O CHISELL NDERTAK	EN:			MATERE	Strike Level	
					EHOLE DI		R (NO CASING D	IAMETEF	R DEPTH SE	EALED
				1/	50mm to 2	20.00m		150mm to	14.90m		
All measurements in metres unless otherwise stated	10m/page So	cale: 1:62	2.50					lational Gri Ordnance		Page 3 of 3	3
Plant Used: Dando 2000	Coordinates / Level (mAOI E: 524161		06	Logged	d By:		Ch	checked By:	C	Approved By:	;

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012



Broadwater Road, We	oadwater Road, Welwyn Garden City			Project No:	342.18	Hol	Hole ID: BH409						
CABLE PERCUSSION	BOREHOLE I	LOG		Date From /	To: 2014 - 13/10.	/2014	Clie		n Hil	l Develo	pment	s Ltd	
		<u></u>	צ	CASING	REDUCED LEVEL/		Samp	ole Details		Tes	t Result	s	cfill ails
DESCRIPTION OF STRATA		LEGEND	WAIEK	DEPTH / (Diam. mm)	DEDTH	TYPE	REF	Depth		SPT N V	alue/Driv	/e mm	Backfill Details
MADE GROUND: Concrete. Stiff orangey brown slightly sandy slightly gravel is angular to subrounded fine to coa	ravelly CLAY.				82.83 0.30	D	1	0.50					
is fine to coarse. Possibly reworked to 1.5 n (LOWESTOFT FORMATION)						D	2	1.00					
					(2.90)	D	3	1.50 - 1.95 1.50 -			PT N=5 0/1,0,2,2		
						U	1	2.50 - 2.95		U=5	0/383m	m	
Vey to medium dense orange brown gravell	ly fine to coarse				79.93 3.20	1	1	3.00					
SAND. Gravel is subangular to rounded fine (KESGRAVE CATCHMENT SUBGROUP)	e to coarse flint.			(150mm)		D	5	3.50 - 4.00 3.50 -			T N=12 2/2,3,3,4		
				(13011111)		D	6	4.50 - 5.00 4.50 -		CPT N (7,13/17	=50/155 7,23,10/5		
					(5.20)	D	7	6.00 - 6.50 6.00 -			T N=32 8/7,7,9,9		
						D	8	7.50 - 8.00 7.50 -			T N=36 8,8,10,1		
Recovered as structureless CHALK compositions with rare orange veins slightly gravelly silt. Orangular to subangular fine to medium extreweak low to medium density cream. Rare succarse rinded flint gravel throughout grade NODULAR/SEAFORD CHALK FORMATIO	Gravel is mely to very ubrounded Dm. (LEWES		•	8.40	<u>74.73 8.40</u>	B D	9	9.00 - 9.50 9.00 -			PT N=5 3/2,1,1,1		
REMARKS : 1. Engineer verified logged in general according	rdance to BS 503	30·2010		Depth		ïme		WATER Date	R LEV	/EL OBS	ter St	anding	Casing
Area CAT scanned rior to excavation. Borehole remained dry on completion. Installed with HDPE standpipe to 20.00m Coordinates estimated due to no GPS signal.	ı bgl.	JU. 2010.		BOR	TO TO TO TO THE PROPERTY OF TH	METE	ER		NAT'	ETER ETER	OUNTF	_evel _ERED:	Depth ALED
uniess otherwise stated		Scale: 1:62.50			Grou		vel to	National Gr Ordnance				1 of 3	
Plant Used: C Dando 2000		^{OD):} 5 N: 212891 II: 83.13		Logge	d By: WC		C	Checked By:	/C		Approved	d By: SS	



Email: info@del		Project No:					- Lucius					
Broadwater Road, W	^{ct} Broadwater Road, Welwyn Garden City				342.18		Hole	e ID:	E	3H409	9	
CABLE PERCUSSIO			Date Fro		го: 014 - 13/10	/2014	Clie		en Hill [Developn	nents Ltd	
		<u> </u>	, CASIN	1G	REDUCED LEVEL/		Samp	ole Details		Test R	esults	III SI
DESCRIPTION OF STRATA	A	LEGEND LA	DEPTI (Diam. r		DEPTH (Thickness)	TYPE	REF	Depth	s	PT N Value	e/Drive mm	Backfill Details
Recovered as structureless CHALK comp with rare orange veins slightly gravelly silt angular to subangular fine to medium ext weak low to medium density cream. Rare coarse rinded flint gravel throughout grad NODULAR/SEAFORD CHALK FORMAT Continued)	t. Gravel is remely to very subrounded le Dm. (LEWES					D	10	10.50 - 11. 10.50 - 1		SPT 2,2/3,		
						D	11	12.00 - 12. 12.00 - 1		SPT I 2,3/4,		
					(11.60)	D	12	13.50 - 14. 13.50 - 1		SPT I 2,3/4,		
						D	13	15.00 - 15. 15.00 - 1		SPT I 3,3/4,		
						D	14	16.50 - 17. 16.50 - 1		SPT I 3,4/4,		
						D	15	18.00 - 18. 18.00 - 1		SPT I 3,4/4,		
					63.13 20.00		16	19.50 - 20. 19.50 - 1	9.95	SPT I 3,4/5,	5,5,4	
REMARKS:			De		HISELLING Depth T	ime				Water	RVATION Standing	
 Engineer verified logged in general acc Area CAT scanned prior to excavation. Borehole remained dry on completion. Installed with HDPE standpipe to 20.00 Coordinates estimated due to no GPS)m bgl.	0:2010.		om.	TO TO	aken		Date	Time	Ctriles		Donth
			R		EHOLE DIA		R	NO CASING E) AMET	 FR F	 DEPTH SE	AI FD
			B		50mm to 20			150mm t			,_, ,,,,,,	-, <u>\</u>
All measurements in metres unless otherwise stated	10m/page S	Scale: 1:62.50						National G		n P	age 2 of 3	3
Plant Used: Dando 2000		OD): 5 N: 212891 I: 83.13	Lo	ogged				Checked By:	/C		oroved By:	



Email. illio@dei	lasiiiioiis.coiii						_				
Broadwater Road, W	/elwyn Gar	den C	City	Project No:	342.18	3	Hole	e ID:	BH	409	
CABLE PERCUSSION	N BOREHOLE L	.OG		Date From / 10/10/2	To: :014 - 13/10)/2014	Clie		n Hill Deve	elopments Ltd	
			ËR	CASING	REDUCED LEVEL/		Samp	ole Details	Т	est Results	cfill ails
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	DEPTH (Thickness)	TYPE	REF	Depth	SPTN	Value/Drive mm	Backfill Details
Borehole complete at 20.00m bgl.			-								
			-								
			-								
			-								
			-								
			-								
REMARKS:		2 22 4 2	· · · · · ·	Depth		Гіте		WATER Date	T: V	BSERVATIONS Vater Standing	Casing
 Engineer verified logged in general acc Area CAT scanned prior to excavation. Borehole remained dry on completion. 	cordance to BS 5930	J:2010.		From		aken		Date	Tille S	Strike Level	Depth
4. Installed with HDPE standpipe to 20.005. Coordinates estimated due to no GPS	lm bgl. signal.			NC		N:		.,0	NATER EN	COUNTERED:	
				BOR	EHOLE DIA	METE	R (CASING D	IAMETER	DEPTH SE	ALED
				1:	50mm to 20).00m		150mm to	o 8.40m		
All measurements in metres					Coo	rdinator	A ct s	National Gr	id		
unless otherwise stated Plant Used:	10m/page S Coordinates / Level (mAC	cale: 1:62	2.50	Logged	Grou		el to	Ordnance Checked By:		Page 3 of 3 Approved By:	
Dando 2000	E: 524255		91	Logget	WC				'C	SS SS	



Broadwater Road, Welwyn C	Jargen Ci	τy		342.18		BH410						
CABLE PERCUSSION BOREHO	LE LOG		Date From / 16/10/2	To: 2014 - 20/10	/2014	Clie		n Hill C	Developm	ents Ltd		
		Ä	CASING	REDUCED		Samp	ole Details		Test Re	sults	<u>≡</u> ≝	
DESCRIPTION OF STRATA	LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	SF	PT N Value	/Drive mm	Backfill Details	
MADE GROUND: Asphalt.				84.79 0.15								
MADE GROUND: Brown sandy clayey gravel. Gravel is angular to rounded fine to coarse of mixed lithologies ncluding brick, concrete and flint. Sand is fine to coarse Frequent brick cobbles.				<u>84.49 0.45</u>	D D	2	1.00					
Stiff orangey brown sandy gravelly CLAY. Gravel is ang to subrounded fine to coarse flint. Sand is fine to coarse flint cobbles. (LOWESTOFT FORMATION)	jular				D	3	1.50 - 2.00 1.50 - 1	1.95	CPT N 2,2/3,3			
				(4.65)	D	4	2.50 - 3.00 2.50 - 2	2.95	CPT N 2,3/4,5			
					D	5	3.50 - 4.00 3.50 - 3	3.95	CPT N 3,3/4,4			
					D	6	4.50 - 5.00 4.50 - 4	1.95	CPT N 4,5/4,3			
				79.84 5.10	В	1	5.10					
Stiff orangey brown slightly sandy slightly gravelly CLAN Gravel is angular to subrounded fine to coarse flint. Sar s fine to coarse. (LOWESTOFT FORMATION)	/		(150mm)	(0.80) 79.04 5.90	В	2	6.00 - 6.50					
Medium dense to dense orangey brown slightly sandy angular to subrounded fine to coarse flint GRAVEL. Sar s fine to coarse. Occasional flint cobbles.(KESGRAVE CATCHMENT SUBGROUP)					D	7	7.50 - 8.00 7.50 - 7		CPT N 3,4/4,4 CPT N 4,5/6,6,	,5,6 =29		
				(5.80)	D	8	9.00 - 9.50 9.00 - §	9.45	CPT N 4,6/7,7			
REMARKS:			Depth	HISELLING Depth T	ime		WATER	LEVE	L OBSER	VATIONS		
Engineer verified logged in general accordance to BS Area CAT scanned prior to excavation. Groundwater encountered at 22.35m bgl.	5 5930:2010.		From	To Ta	aken	1	Date 20-10-14	Time	Strike 22.35	Level	Dep	
I. Installed with HDPE standpipe to 25.00m bgl.			N	CHISELLIN NDERTAKE	<i>\\</i> :							
			BOR	EHOLE DIA 50mm to 25	METE	R	CASING D 150mm to			EPTH SE	ALEC	
All measurements in metres unless otherwise stated 10m/page	Scale: 1:62.5	50					National Gri Ordnance		n Pa	age 1 of 3	}	
lant Used: Coordinates / Leve	el (mAOD): 79.09 N: 212972 Level: 84.94	2.11	Logge				Checked By:			oved By:		

Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com



Project No: Broadwater Road, Welwyn Garden City **BH410** 2342.18 Date From / To: Client CABLE PERCUSSION BOREHOLE LOG 16/10/2014 - 20/10/2014 Spen Hill Developments Ltd REDUCED Sample Details Test Results Backfill Details NATER CASING LEVEL/ DEPTH LEGEND **DESCRIPTION OF STRATA** (Diam. mm) REE TYPF SPT N Value/Drive mm Depth (Thickness) Medium dense to dense orangey brown slightly sandy 000 angular to subrounded fine to coarse flint GRAVEL. Sand 0000 D 9 10.50 - 11.00 CPT N=31 000 is fine to coarse. Occasional flint cobbles.(KESGRAVE 10.50 - 10.95 CATCHMENT SUBGROUP)(BH Continued) 4.6/7.7.8.9 00 0 0 00 000 11.70 73.24 11.70 В 3 11.70 Recovered as structureless CHALK composed of cream D 10 12.00 - 12.50 SPT N=2 with rare orange veins slightly gravelly silt. Gravel is 12.00 - 12.45 1.1/0.1.1.0 angular to subangular fine to medium extremely weak low density cream. Rare subrounded coarse gravels and cobbles of rinded flint throughout grade Dm. (LEWES NODULAR/SEAFORD CHALK FORMATION) 13.50 - 14.00 13.50 - 13.95 D SPT N=5 1,1/2,1,1,1 D 15.00 - 15.50 SPT N=7 15.00 - 15.45 1,2/2,1,2,2 D 13 16.50 - 17.00 SPT N=8 16.50 - 16.95 2.2/2.2.2.2 D 18.00 - 18.50 SPT N=13 18.00 - 18.45 2,2/3,3,3,4 (13.30)19.50 - 20.00 19.50 - 19.95 D 15 SPT N=16 3,4/3,3,4,6 CHISELLING WATER LEVEL OBSERVATIONS **REMARKS**: Depth Depth Time Water |Standing| Casing Date Time 1. Engineer verified logged in general accordance to BS 5930:2010. From To Taken Strike Level Depth Area CAT scanned prior to excavation. 20-10-14 22.35 ING 3. Groundwater encountered at 22.35m bgl. (EN: 4. Installed with HDPE standpipe to 25.00m bgl. UNDERTA **BOREHOLE DIAMETER** CASING DIAMETER **DEPTH SEALED** 150mm to 25.00m 150mm to 11.70m All measurements in metres Coordinates to National Grid 10m/page Scale: 1:62.50 Page 2 of 3 Ground Level to Ordnance Datum unless otherwise stated Checked By: Coordinates / Level (mAOD): Approved By: Plant Used: Logged By: Dando 2000 E: 524279.09 N: 212972.11 WC WC SS Level: 84.94



Email. inio@dei	lasimons.com										
Broadwater Road, W	den C	City	Project No:	342.18	3	Hol	e ID:	BH4	410		
CABLE PERCUSSION	CABLE PERCUSSION BOREHOLE LOG DESCRIPTION OF STRATA LEGENE)/2014	Clie		lill Deve	lopments Ltd	
			ER	CASING	REDUCED LEVEL/		Samp	ole Details	Te	est Results	≣ si
DESCRIPTION OF STRATA	L	LEGEND	WATER	DEPTH / (Diam. mm)	DEDTH	TYPE	REF	Depth	SPT N	Value/Drive mm	Backfill Details
Recovered as structureless CHALK comp with rare orange veins slightly gravelly silt angular to subangular fine to medium ext density cream. Rare subrounded coarse (cobbles of rinded flint throughout grade D NODULAR/SEAFORD CHALK FORMATI Continued)	i. Gravel is remely weak low gravels and lm. (LEWES					D	16	21.00 - 21.50 21.00 - 21.4		SPT N=26 4,4/6,6,6,8	
						D	17	22.50 - 23.00 22.50 - 22.99		SPT N=25 8,4/5,6,7,7	
					<i>59.94</i> 25.00	D	18	24.00 - 24.50 24.00 - 24.4		SPT N=34 ,0/6,7,14,7	
REMARKS: 1. Engineer verified logged in general acc 2. Area CAT scanned prior to excavation. 3. Groundwater encountered at 22.35m b 4. Installed with HDPE standpipe to 25.00	gl.	50:2010.		Depth From	To T	Time aken	1		ime W	BSERVATION ater Standin trike Level 2.35	g Casing
				BOR	EHOLE DIA	AMETE		CASING DIAI		DEPTH S	EALED
All measurements in metres unless otherwise stated		Scale: 1:62	2.50		Grou		es to National Grid evel to Ordnance Datum Page 3 of 3				3
Plant Used: Dando 2000	Coordinates / Level (mAC E: 524279.09 Leve	72.11	Logged By: WC				Checked By: Approved By: SS				



Email: info@deitasimoi	15.00111									
Broadwater Road, Welwy	City	Project No:	342.18	 }_	Hole	e ID:	E	3H411		
CABLE PERCUSSION BORE	CABLE PERCUSSION BOREHOLE LOG DESCRIPTION OF STRATA LEGEN)/2014	Clie		en Hill	Developments Ltd	
		ËR	CASING	REDUCED LEVEL/		Samp	ole Details		Test Results	ejis
DESCRIPTION OF STRATA	LEGEND	WATER	DEPTH / (Diam. mm)	DEDTH	TYPE	REF	Depth	ı S	SPT N Value/Drive mm	Backfill Details
MADE GROUND: Asphalt.		}		83.77 0.15	i					
MADE GROUND: Brown slightly sandy gravelly cla Gravel is angular to subrounded fine to coarse brid flint. Sand is fine to coarse. Rare brick cobbles.				(1.05)	D D	1	0.50			
		\{ -		82.72 1.20		2	1.00			
Stiff brown slightly sandy slightly gravelly CLAY. Go angular to subrounded fine to coarse flint. Sand is coarse. (LOWESTOFT FORMATION)	fine to				D	3	1.50 - 2.00 1.50 -		CPT N=8 2,1/2,2,2,2	
		- 			D	4	2.50 - 3.00 2.50 -		CPT N=8 2,2/2,2,2,2	
					B U	1	3.50 - 4.00 3.50 - 3.95		U=35/0mm	
					D	5	4.50 - 5.00 4.50 -		SPT N=7 1,1/2,1,2,2	
			(150mm)	(8.10)	D	6	6.00 - 6.50 6.00 -		SPT N=7 1,0/1,2,2,2	
					D	7	7.50 - 8.00 7.50 -		SPT N=8 2,2/2,2,2,2	
Very demse brown slightly clayey sandy angular to subrounded fine to coarse flint GRAVEL. Sand is fooarse. (KESGRAVE CATCHMENT SUBGROUP)	ine to $ {}^{\varrho} \lozenge {}^{\cdot} {}^{\varrho} \langle$	rt −		74.62 9.30	D B	8 2	9.00 - 9.50 9.00 - 9.30		SPT N=20 1,2/2,4,7,7	
REMARKS:	· <i>U</i> & <i>U</i> ·	1	-	HISELLING			WATER	R LEVE	EL OBSERVATIONS	
Engineer verified logged in general accordance Area CAT scanned prior to excavation. Borehole remained dry on completion.	to BS 5930:2010.		Depth From	To T	Time Taken		Date	Time	Water Standing Strike Level	1
4. Installed with HDPE standpipe to 20.00m bgl.				NDEL.			ИО	WATE	Strike Level	
				EHOLE DIA 50mm to 20		R	CASING D	JIAME	TER DEPTH SE	ALED
All measurements in metres unless otherwise stated 10m/pa	age Scale: 1:6	32.50					National G Ordnance		n Page 1 of 3	
	s / Level (mAOD): 524170.02 N: 2130 Level: 83.92	045.29	Logge	d By:			Checked By:	۷C	Approved By:	



Broadwater Road, Welv	wyn Gar	den C	ity	Project No:	342.18	<u> </u>	Hol	e ID:		BH41	11	
CABLE PERCUSSION BO	OREHOLE L	.OG		Date From / 21/10/2	To: 2014 - 22/10)/2014	Clie		n Hill	l Develo	oments Ltd	
			H.	CASING	REDUCED		Sam	ole Details		Test	Results	≣ s
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth		SPT N Va	lue/Drive mm	Backfill Details
Very demse brown slightly clayey sandy angu subrounded fine to coarse flint GRAVEL. Sand coarse. (KESGRAVE CATCHMENT SUBGRO Continued)	d is fine to		-		(2.20)	D	9	10.50 - 11. 10.50 - 1			=54/165mm 18,22/15mm)	
Recovered as structureless CHALK composed with rare orange veins sandy very gravelly silt angular to subangular fine to medium extreme weak low to medium density cream. Sand is file	t. Gravel is ely to very ne to coarse.		-	11.50	72.42 11.50	B D	10	11.50 12.00 - 12. 12.00 - 1			T N=1 0,1,0,0	
Rare subrounded coarse gravels and cobbles flint throughout. Grade Dm. (LEWES NODULA SEAFORD CHALK FORMATION)	of rinded AR/		-			D	11	13.50 - 14. 13.50 - 1			T N=4 1,1,1,1	
			-		(8.50)	D	12	15.00 - 15. 15.00 - 1			T N=7 1,2,2,2	
			-			D	13	16.50 - 17. 16.50 - 1			T N=5 2,2,1,0	
			-			D	14	18.00 - 18. 18.00 - 1			T N=9 2,2,2,3	
			-		63.92 20.00	D	15	19.50 - 20. 19.50 - 1			N=11 2,3,3,3	
REMARKS:					HISELLING Depth	G Γime		WATER		W/at	ERVATION er Standin	
 Engineer verified logged in general accorda Area CAT scanned prior to excavation. Borehole remained dry on completion. 	ince to BS 593	0:2010.		From	To T	aken		Date	Tim	e ೧۲:۱		
4. Installed with HDPE standpipe to 20.00m bg	gl.			NC		N:		<i>N</i> O	WATE	ER ENC	DEPTHO	
					EHOLE DIA 50mm to 20		R	CASING D	IAME	IER	DEPTH SI	EALED
All measurements in metres					Coo	rdinate	s to N	National Gr	rid		Dec. C. S.	
uniess otherwise stated	dinates / Level (mAC E: 524170.02			Logge		und Lev		Ordnance Checked By: W	Datu /C		Page 2 of 3	



Project Broadwater Road, W	 /elwyn Gar	den C	City	Project No:	2342.1	8	Hol	ole ID:	BH	 411		
CABLE PERCUSSION				Date From /				ent:		elopments Ltd		
			iř!	CASING	REDUCE	ED .		ple Details		est Results	<u>≡</u> s	
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness		REF	Depth	SPT N	Value/Drive mm	Backfill Details	
Borehole complete at 20.00m bgl.			Ē			\top						
			<u> </u>									
			Ė									
			É									
			Ė									
			[
			<u> </u>									
			[
			<u> </u>									
			Ē									
			<u> </u>									
			Ē									
			<u> </u>									
			<u> </u>									
			[
			Ē									
			£									
			Ė									
			į									
			Ē									
			į									
			Ē									
REMARKS:					CHISELLIN Depth	Time			T: V	BSERVATIONS Vater Standing	Casing	
 Engineer verified logged in general acc Area CAT scanned prior to excavation. Borehole remained dry on completion. 	ordance to BS 5930	J:2010.		From	To	Taken	+	Date				
Installed with HDPE standpipe to 20.00	m bgl.			NC	O CHISELL NDERTAK	(EN:			MATEREN	COUNTERED:		
					EHOLE D		ER	CASING D	IAMETER	DEPTH SE	ALED	
				1/	50mm to 2	20.00m		150mm to	11.50m			
All measurements in metres unless otherwise stated	10m/page So	cale: 1:62	2.50					National Gr Ordnance		Page 3 of 3		
Plant Used: Dando 2000	Coordinates / Level (mAOI E: 524170.02		45.29	Logged	d By:			Checked By:	/C	Approved By:		



Broadwater Road, Welwyn	Garden City	Project No:	2342.18		Hole	e ID:	BH	412	
CABLE PERCUSSION BOREH	OLE LOG	Date From /			Clie		Hill Deve	lopments Ltd	
	H. H.	CASING	REDUCED		Samp	ole Details	Ţ	est Results	<u>≡</u> ≅
DESCRIPTION OF STRATA	LEGEND X	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	SPT N	Value/Drive mm	Backfill Details
MADE GROUND: Asphalt.			84.75 0.10 84.45 0.40		4	0.50			
MADE GROUND: Reddy brown clayey sandy gravel. Gravel is angular to subangular fine to coarse brick. S is fine to coarse. Frequent brick cobbles.	Sand ———			D D	1 2	1.00			
Stiff orangey brown slightly gravelly sandy CLAY. Grangular to subrounded fine to coarse flint. Sand is fin coarse. (LOWESTOFT FORMATION)	avel ise to		(1.90)	D	3	1.50 - 1.95 1.50 - 1.9		SPT N=13 I,1/2,3,4,4	
Dense brown clayey gravelly fine to coarse SAND. Go is angular to subrounded fine to coarse flint.	ravel		82.55 2.30	В	1	2.50 - 2.95 2.50 - 2.9		CPT N=33 8,5/7,8,9,9	
(LOWESTOFT FORMATION)	0 5 - 0 5		(1.10) 81.45 3.40	· U	1	3.50 - 3.95	U:	-41/338mm	
Stiff orangey brown slightly sandy slightly gravelly CL Gravel is angular to subrounded fine to coarse flint. S is fine to coarse. (LOWESTOFT FORMATION)	and		(1.30)	D	4	3.95 - 4.05			
Very dense to dense orange brown gravelly fine to me		(150mm)	80.15 4.70	D	5	4.50 - 4.95 4.50 - 4.9		SPT N=48 5/8,10,14,16	
Recovered as structureless CHALK composed of cre with rare orange veins slightly gravelly silt. Gravel is angular to subangular fine to medium extremely weak density cream. Rare subrounded coarse gravels and	am	8.60	(3.90) 76.25 8.60	B D	6	6.00 - 6.45 6.00 - 6.4 7.50 - 7.95 7.50 - 7.9 9.00 - 9.45 9.00 - 9.4	95 CPT (11,14/3	CPT N=49 /11,12,12,14 N=50/85mm 0mm/41,9/10mm	
cobbles of rinded flint throughout. Grade Dm. (LEWE NODULAR/ SEAFORD CHALK FORMATION) REMARKS: 1. Engineer verified logged in general accordance to 2. Area CAT scanned prior to excavation.		Depth From	n To Ta	ime aken		Date	Time W	BSERVATION Vater Standing trike Level	g Casing
Borehole remained dry on completion. Installed with HDPE standpipe to 20.00m bgl.		BOR	CHISELLING	METE	R	NO N CASING DIA 150mm to 8	AMETER	COUNTERED DEPTH SI	EALED
All measurements in metres unless otherwise stated 10m/page	e Scale: 1:62.50				inates to National Grid d Level to Ordnance Da			Page 1 of 3	3
Plant Used: Coordinates / L Dando 2000 E: 524	evel (mAOD): 1118.88 N: 212945.31 Level: 84.85	Logge	ed By: WC			Checked By: WC		Approved By:	3



Email. info@dei												
Broadwater Road, Welwyn Garden C				Project No:	342.18	3	Hol	e ID:		BH4	12	
CABLE PERCUSSION	N BOREHOLE	LOG		Date From / 17/10/2	To: 2014 - 20/10	0/2014	Clie		en Hill	l Develo	opments Ltd	I
			띪	CASING	REDUCED LEVEL/		Sam	ple Details		Tes	st Results	il di
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	DEDTH	TYPE	REF	Depth		SPT N V	alue/Drive mn	Backfill Details
Recovered as structureless CHALK comp with rare orange veins slightly gravelly silt angular to subangular fine to medium ext density cream. Rare subrounded coarse of cobbles of rinded flint throughout. Grade NODULAR/ SEAFORD CHALK FORMAT Continued)	i. Gravel is remely weak low gravels and Dm. (LEWES					D	8	10.50 - 10. 10.50 - 1			PT N=34 //7,7,9,11	
						D	9	12.00 - 12. 12.00 - 1			PT N=21 3/5,6,4,6	
					(11.40)	D	10	14.00				
						D	11	15.00 - 15. 15.00 - 1			PT N=27 7/3,6,10,8	
						D	12	16.50 - 16. 16.50 - 1			PT N=13 3/2,3,4,4	
						D	13	18.00 - 18. 18.00 - 1			N=50/235mm 15,17,5/10mm	
			- - - - - - - - - - - - - - - - - - -		<i>64.85</i> 20.0		14	19.50 - 19. 19.50 - 1	9.95	3,6/	PT N=41 9,10,10,12	
REMARKS:				Depth	HISELLIN Depth	G Time				\//s	SERVATION ter Standir	
Engineer verified logged in general acc Area CAT scanned prior to excavation. Borehole remained dry on completion.	cordance to BS 593	30:2010.		From	To 7	Гaken	+	Date	Tim	IE ~.		
4. Installed with HDPE standpipe to 20.00	m bgl.			NC	CHISELLI NDERTAKE	EN:		ИО	WAT	ER ENC	OUNTERES	
					EHOLE DIA		:R	CASING E	JIAME	FIER	DEPTH S	EALED
All measurements in metres unless otherwise stated	10m/page	Scale: 1:62	2.50					National G		ım	Page 2 of	3
Plant Used: Dando 2000			n): N: 212945.31		d By:	and Le		Checked By:	/C	aill	Approved By:	8

Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com



Project: Broadwater Road, W	 /elwyn Gar	den C	City	Project No:	2342.18		Hole	∍ ID:	BH		
CABLE PERCUSSION				Date From /			Clien			/elopments Ltd	
			H.	CASING	REDUCED	T	Samp	ole Details		Test Results	III SI
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	SPT	N Value/Drive mm	Backfill Details
Borehole complete at 20.00m bgl.			Ė								
			<u> </u>							l	
			Ē							l	
										l	
			E							l	
			į							l	
			F							l	
			į							l	
			Ė							l	
			<u> </u>							l	
			É I							l	
			- F							l	
			É							l	
			- F							l	
			É							l	
			; F							l	
			É							l	
			<u> </u>							l	
			į							l	
			<u> </u>							l	
			- E							l	
			<u> </u>							l	
REMARKS:					 Depth T	G Fime	\dashv	WATER	١,	DBSERVATIONS Water Standing	
Engineer verified logged in general acc Area CAT scanned prior to excavation.	ordance to BS 5930	J:2010.		From	To Ta	aken		Date			
Borehole remained dry on completion. Installed with HDPE standpipe to 20.00	ım bgl.			NC	O CHISELLIN NDERTAKE	N:			ATER E	Strike Level	
					REHOLE DIA		R (NO CASING D	NAVETER	R DEPTH SE	EALED
					50mm to 20			150mm to		DEI III CE	
All measurements in metres unless otherwise stated	10m/page So	cale: 1:62	2.50					National Gri Ordnance		Page 3 of 3	}
	Coordinates / Level (mAOI E: 524118.88		45.31	Logged	d By:		Cf	Checked By:	 /C	Approved By:	

Level: 84.85



Broadwater Road, Welv	y Oai	4011 OII	_	Date:	342.18		Clie	unt:		BH4	. •	
CABLE PERCUSSION BO	OREHOLE L	.OG			16/10/2014		Cile		n Hill	l Develo	pments Ltd	
			ER	CASING	REDUCED LEVEL/		Samp	ole Details		Tes	t Results	(fill
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / Diam. mm)	DEDTH	TYPE	REF	Depth		SPT N V	alue/Drive mm	Backfill
MADE GROUND: Asphalt.					83.78 0.10 83.48 0.40		,					
MADE GROUND: Brown clayey slightly sandy Gravel is angular to rounded fine to coarse of a ithologies including brick, flint and concrete. So coarse. Frequent brick cobbles.	mixed				90.10	D D	2	1.00				
Stiff orangey brown slightly sandy CLAY. Sand nedium. Medium to coarse sand sized organic						U	1	1.50 - 1.95		U=3	6/360mm	
nroughout. (LOWESTOFT FORMATION)						D	3	1.95 - 2.05				
						D	4	2.50 - 2.95 2.50 -			PT N=4 1/1,1,1,1	
					(5.50)	В	1	3.00 - 3.40				
					, ,	U	2	3.50 - 3.95		U=5	2/360mm	
						D	5	3.95 - 4.05				
						D	6	4.50 - 4.95 4.50 -			T N=12 /2,3,3,4	
Niff links have a castled a second order of block of block	hati v a a sa ali v				77.98 5.90	U	3	6.00 - 6.45		U=6	1/360mm	
Stiff light brown mottled orange and black slight CLAY. Sand is fine to medium. Potentially high content. (LOWESTOFT FORMATION)	ntiy sandy n organic				(1.30)	D	7	6.45 - 6.55				
Niff harry was taken before the climbally a conducation taken					76.68 7.20							
Stiff brown mottled black slightly sandy slightly CLAY. Gravel is angular to subangular fine to o Sand is fine to coarse. Potentially high organic LOWESTOFT FORMATION)	coarse flint.			(150mm)	(1.60)	В	2	7.50 - 7.95 7.50 -			T N=40 3,9,10,13	
Dense to very dense brown clayey sandy anguounded fine to coarse flint GRAVEL. Sand is to coarse. Rare flint cobbles. (KESGRAVE CATC	fine to				<u>75.08</u> 8.80	В	3	9.00 - 9.45 9.00 -			=50/295mm ,14,16/70mm)	
REMARKS :		1.0 0 0 1			HISELLING	ime		WATER	RLEV		SERVATION ter Standing	
 Engineer verified logged in general accorda Area CAT scanned prior to excavation. Borehole remained dry on completion. Installed with HDPE standpipe to 20.00m bg 		0:2010.		Depth		aken		Date	Tim	ie i a		~ ~
								NO	WATI		DEDT	
					EHOLE DIA 50mm to 20		K	CASING D	JAWE	ILK	DEPTH SE	EALED
All measurements in metres unless otherwise stated	lm/page S	Scale: 1:62.5	0					National Gi Ordnance		ım	Page 1 of 3	3
Dando 2000	dinates / Level (mAC E: 524096.58 Level		.55	Logge	d By:		C	Checked By:	/C		Approved By:	;

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012



Broadwater Road, W	arden City				Hole ID: BH413					
CABLE PERCUSSION	N BOREHOLE	LOG	Date:	16/10/2014		Clie		n Hill Dev	elopments Ltd	
		H.	CASING	REDUCED		Sam	ole Details		Test Results	ils is
DESCRIPTION OF STRATA		LEGEND X H	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	SPT	N Value/Drive mm	Backfill Details
Dense to very dense brown clayey sandy rounded fine to coarse flint GRAVEL. Sar coarse. Rare flint cobbles. (KESGRAVE (SUBGROUP)(BH Continued)	nd is fine to				В	4	10.50 - 10.9 10.50 - 10	105 L CP	T N=50/275mm 0,10,14,16/50mm)	
				(7.80)	D	8	12.00 - 12.4 12.00 - 12	15	CPT N=40 4,7/8,9,10,13	
					D	9	13.50 - 13.9 13.50 - 13	95	CPT N=41 5,8/8,10,11,12	
					D	10	15.00 - 15.4 15.00 - 15	15	CPT N=42 3,5/9,9,10,14	
Recovered as structureless CHALK comp with rare orange veins slightly gravelly silt angular to subangular fine to medium ext	. Gravel is		16.60	<i>67.28</i> 16.60	В	5	16.50 - 16.9 16.50 - 16		CPT N=9 9,8/3,2,2,2	
weak low to medium density cream. Rare coarse gravels and cobbles of rinded flint Grade Dm. (LEWES NODULAR/ SEAFOI FORMATION)	subrounded throughout.			(3.40)	D	11	18.00 - 18.4 18.00 - 18		SPT N=13 2,3/4,3,3,3	
				63.88 20.00		12	19.50 - 19.9 19.50 - 19	.95	SPT N=14 2,3/2,3,4,5	
REMARKS:		000.0040		CHISELLING Depth 7	∃ Γime		WATER	Time	DBSERVATION Water Standing	g Casing
Engineer verified logged in general acc 2. Area CAT scanned prior to excavation. Borehole remained dry on completion. Installed with HDPE standpipe to 20.00		930:2010.	From		aken NG N:	ER .	NO CASING D	AMETER E	Strike Level	Depth
All measurements in metres unless otherwise stated	10m/page	Scale: 1:62.50					National Gri Ordnance		Page 2 of 3	3
Plant Used: Dando 2000	Coordinates / Level (n E: 524096.	nAOD): .58 N: 212991.55 vel: 83.88	Logge		mu Le		Checked By:		Approved By:	

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012



Project: Broadwater Road, W	 /elwyn Gar	den C	ity	Project No:	2342.18	B	Но	ole ID:	BH4	413	
CABLE PERCUSSION				Date:	16/10/2014		Cli	ent:	n Hill Deve	lopments Ltd	
	· · · · · · · · · · · · · · · · · · ·		띪	CASING	REDUCED	1	Sam	ple Details		est Results	ii si
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)) TYPE	REF	Depth	SPT N	Value/Drive mm	Backfill Details
REMARKS: 1. Engineer verified logged in general acc 2. Area CAT scanned prior to excavation.	cordance to BS 593	0:2010.		Depth From	To T	Time Taken		Date	Time W	BSERVATIONS fater Standing trike Level	Casing
 Area CAT scanned prior to excavation. Borehole remained dry on completion. Installed with HDPE standpipe to 20.00 				BOR	CHISELL DERTAKE NDERTAKE SEHOLE DI.	AMETE	R	CASING D 150mm to	IAIVIETER	COUNTERED:	ALED
All measurements in metres unless otherwise stated		cale: 1:62	2.50				el to	National Gr o Ordnance		Page 3 of 3	
Plant Used: Dando 2000	Coordinates / Level (mAO E: 524096.58 Level:		91.55	Logged	d By: WC			Checked By: W	С	Approved By:	



Broadwater Road, Welwyn Garden C			ity	Project No:	342.18		HOI	e ID:	BH414	
CABLE PERCUSSION BORE	HOLE LO	G		Date:	14/10/2014		Clie		ill Developments Ltd	
			K.	CASING	REDUCED		Samp	ole Details	Test Results	
DESCRIPTION OF STRATA	LE	EGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	SPT N Value/Drive mm	
ADE GROUND: Asphalt.	X				<i>85.04</i> 0.15					
MADE GROUND: Brown clayey slightly sandy grave Gravel is angular to rounded fine to coarse of mixed thologies including brick, flint and concrete. Sand i	d 🔀				(0.85) <i>84.19</i> 1.00	D D	1 2	1.00		
coarse. Frequent brick cobbles. Stiff orangey brown slightly sandy gravelly CLAY. Gungular to subrounded fine to coarse flint. Sand is ficoarse. (LOWESTOFT FORMATION)	Gravel is					D	3	1.50 - 2.00 1.50 - 1.95	CPT N=19 2,3/4,4,5,6	
	 				(3.20)	U	1	2.50 - 2.95	U=35/225mm	
	- - - - -					D	4	3.50 - 4.00 3.50 - 3.95	SPT N=10 2,3/2,4,2,2	
					80.99 4.20	В	1	4.20		
Medium dense orangey brown slightly gravelly fine nedium SAND. Gravel is angular to subrounded fin medium SAND. Gravel is angular to subrounded fin coarse flint. (POSSIBLE LOWESTOFT FORMATIO	ne to				(1.50)	D	5	4.50 - 5.00 4.50 - 4.95	CPT N=13 2,3/4,3,3,3	
						_				
Stiff orange brown slightly gravelly sandy CLAY. Grangular to subrounded fine to coarse flint. Sand is ficoarse. (LOWESTOFT FORMATION)	ravel is fine to				79.49 5.70	B D	6	5.70 6.00 - 6.50 6.00 - 6.45	SPT N=25 2,3/4,5,7,9	
	- - - - -				(2.20)					
A. d.					77.29 7.90	1 🗗	3	7.50 - 7.95 8.00	U=45/315mm	
Medium dense orange brown gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse to Rare cobble sized clay pockets.(KESGRAVE CATCHMENT SUBGROUP)	e					D	7			
						D	8	9.00 - 9.50 9.00 - 9.45	CPT N=26 4,5/6,6,7,7	
		· · · · · · · · · · · · · · · · · · ·			(3.90)					
REMARKS: . Engineer verified logged in general accordance to	to BS 5030-3	2010		Depth		ime			Water Standing	Casir
Area CAT scanned prior to excavation. Borehole remained dry on completion. Backfilled with arisings.	0 63 3930.2	.010.		From	TO TO	aken		Date III	Strike Level TER ENCOUNTERED:	Dept
- 3							_	NOWA	TEREI	
				BOR	EHOLE DIA	METE	:K	CASING DIAM	METER DEPTH SE	ALED
All measurements in metres unless otherwise stated 10m/pa	ige Scal	le: 1:62.	50					National Grid Ordnance Da	tum Page 1 of 2	
ant Used: Coordinates	/ Level (mAOD): 524052.85 N Level: 8	I: 21287	9.17	Logge				Checked By: WC	Approved By:	



Broadwater Road, Welwyn Garden C											
Broadwater Road, W	Broadwater Road, Welwyn Garden CABLE PERCUSSION BOREHOLE LOG				342.18	}	Hole	e ID:	BH414		
CABLE PERCUSSION							Clie		ill Developme	ents Ltd	
			H.	CASING	REDUCED		Samp	ple Details	Test Res	sults	
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	SPT N Value/I	Orive mm	
Medium dense orange brown gravelly fine SAND. Gravel is angular to rounded fine the Rare cobble sized clay pockets. (KESGRA CATCHMENT SUBGROUP) (BH Continue)	to coarse flint. VE					D	9	10.50 - 11.00 10.50 - 10.95	CPT N= 5,6/6,7;		
Recovered as structureless CHALK comp with rare orange veins slightly gravelly silt angular to subangular fine to medium extr density cream. Rare subrounded coarse of cobbles of rinded flint throughout.Grade D NODULAR/SEAFORD CHALK FORMATI	. Gravel is remely weak low gravels and Om. (LEWES				73.39 11.80 (1.15) 72.24 12.95	D	4 10	11.80 12.00 - 12.50 12.00 - 12.45	SPT N 1,0/1,0,		
VOID					(3.35)						
Loose orange brown gravelly fine to coars Gravel is subangular to subrounded fine t (DISSOLUTION SOILS)					68.89 16.30 (1.20)	D	11	16.50 17.50 - 17.95	007.11		
Borehole terminated due to difficult drilling the void at 17.50m bgl.	g associated with								CPT N 1,0/0,1,		
REMARKS: 1. Engineer verified logged in general acc 2. Area CAT scanned prior to excavation. 3. Borehole remained dry on completion. 4. Backfilled with arisings.	ordance to BS 593	0:2010.	ŀ	Depth From		ime aken 4G N:	ER	Date Tir	Strike Strike	Standing	Casing Depth
All measurements in metres unless otherwise stated	10m/page S	Scale: 1:62	2.50					National Grid Ordnance Da	tum Pa	ge 2 of 2	
Plant Used: Dando 2000					Logged By:			Checked By:	Appro	oved By:	



Broadwater Road, Welv	wyn Gar	aen C	ity		342.18		BH415													
CABLE PERCUSSION BO	DREHOLE L	.OG		Date From /	To: 2014 - 14/10	/2014	Clie		n Hill	Developm	ents Ltd									
		l R	쏪	CASING	REDUCED		Samp	ole Details		Test Re	ii si									
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	5	SPT N Value/Drive mm		Backfill Details								
MADE GROUND: Concrete.					84.72 0.20															
MADE GROUND: Brown clayey slightly sandy Gravel is angular to rounded fine to coarse of in ithologies including brick, flint and concrete. S	mixed				84.32 0.60	D D	2	1.00												
coarse. Frequent brick cobbles. Stiff orange brown sandy gravelly CLAY. Grave o subrounded fine to coarse flint. Sand is fine coarse.(LOWESTOFT FORMATION)						В	1	1.50 - 1.95 1.50 -		CPT N=50 (7,11/19,24,										
					(2.80)	D	3	2.50 - 2.95 2.50 -		CPT N 4,5/5,6										
Stiff orange brown sandy gravelly CLAY. Grave to subrounded fine to coarse flint. Sand is fine	to coarse.				81.52 3.40	D	4	3.50 - 3.95 3.50 -		CPT N 3,4/4,5										
Hydrocarbon odour throughout. (LOWESTOF1 FORMATION)					(1.20) 80.32 4.60	В	2	4.50 - 4.95 4.50 -		CPT N 3,4/5,6										
Stiff orangey brown slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse flint. Sand is fine to medium. (LOWESTOFT FORMATION) Dense orange brown gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse flint. Rare flint cobbles.				(150mm)	(1.30) 79.02 5.90	- В	3	6.00 - 6.45 6.00 - 6.45		5 CPT N=43 4,6/7,10,12,14										
(KESGRAVE CATCHMENT SUBGROUP)						D	5	7.50 - 7.95 7.50 -		CPT N 3,5/9,9,										
					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0000				(5.60)	D	6	9.00 - 9.45 9.00 -		CPT N 3,5/7,8,	I=37 10,12	
REMARKS:					HISELLING			WATER	RLEVE	EL OBSER										
. Engineer verified logged in general accorda . Area CAT scanned prior to excavation Groundwater encountered at 27.00m bgl.		0:2010.		Depth From	To T	ime aken 4G	1	Date 14-10-14	Time	Strike 27.00	Standing Level 25.00	Dep								
l. Installed with HDPE standpipe to 30.00m bg	ıl.			N	CHISELLIN	N:														
				BOR	EHOLE DIA 50mm to 30	METE	R	CASING D			EPTH SE	ALEC								
All measurements in metres unless otherwise stated	m/page S	cale: 1:62.	50					National Gr Ordnance		m Pa	age 1 of 4									
	linates / Level (mAO E: 524101.97	DD): N: 21289 : 84.92	9.63	Logge				Checked By:	/C		roved By:									



Broadwater Road, Welwyn Garden City					342.18	Hol	e ID:	BH	l415				
CABLE PERCUSSION	BOREHOLE	LOG		Date From /			Clie		Hill Dev	II Developments Ltd			
			ĸ	CASING	REDUCED		Sam	ole Details		Test Re	sults	≡ s	
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness)	TYPE	REF	Depth	SPT	N Value	/Drive mm	Backfill Details	
Dense orange brown gravelly fine to coars is angular to rounded fine to coarse flint. R (KESGRAVE CATCHMENT SUBGROUP)	are flint cobbles.			11.50	<i>73.42</i> 11.50	D	7	10.50 - 10.9 10.50 - 10	95	CPT N 4,6/8,9,1			
Recovered as structureless CHALK composition rare orange veins slightly gravelly silt. angular to subangular fine to medium extreweak low to medium density cream. Rare scoarse gravels and cobbles of rinded flint to Grade Dm. (LEWES NODULAR/ SEAFOR FORMATION)	Gravel is emely to very subrounded throughout.			11.00	70.42	D	8	12.00 - 12.4 12.00 - 12		CPT N 1,2/4,8,			
FORMATION)						D	9	13.50 - 13.9 13.50 - 13		SPT N 1,2/4,4			
						D	10	15.00 - 15.4 15.00 - 15		SPT N 3,4/4,5			
						D	11	16.50 - 16.9 16.50 - 16		SPT N 2,2/3,2			
						D	12	18.00 - 18.4 18.00 - 18		SPT N 2,3/6,8,			
						D	13	19.50 - 19.9 19.50 - 19	.95	SPT N 2,2/3,5	,6,4		
REMARKS:				Depth	HISELLING Depth	G Time		WATER			VATIONS Standing		
 Engineer verified logged in general accordance Area CAT scanned prior to excavation. Groundwater encountered at 27.00m bg Installed with HDPE standpipe to 30.00r 	l.	su:2U1U.		From NC	TO T	aken NG :N:	1	Date 14-10-14		Strike 27.00	25.00	Depth	
					EHOLE DIA		R	CASING DI	AMETER	R D	EPTH SE	ALED	
				1	50mm to 30	0.00m		150mm to	11.50m				
All measurements in metres	10m/page	Scale: 1:62.5	50					National Gri		Pa	age 2 of 4		
unless otherwise stated Plant Used: Dando 2000	Coordinates / Level (mA E: 524101.9	OD):		Logge		and Le		Ordnance Checked By: W(oved By:		



Email: info@del	: info@deltasimons.com													
Broadwater Road, W	<i>l</i> elwyn Gar	den C	ity	Project No:	342.18	3	Hol	e ID:	BH	415				
CABLE PERCUSSIO	N BOREHOLE I	LOG		Date From / 13/10/2	To: :014 - 14/1	0/2014	Clie		Hill Deve	lopmei	nts Ltd			
DECODIDE OF OTDAT		LEGEND	ER	CASING	REDUCED LEVEL/		Samp	ole Details	Т	Test Results		ais Ei		
DESCRIPTION OF STRATA	A	LEGEND	WATER	DEPTH / (Diam. mm)	DEPTH (Thickness)	TYPE	REF	Depth	SPT N	Value/D	rive mm	Backfill Details		
Recovered as structureless CHALK composite rare orange veins slightly gravelly sil angular to subangular fine to medium extweak low to medium density cream. Rare coarse gravels and cobbles of rinded finiting Grade Dm. (LEWES NODULAR/ SEAFO FORMATION)(BH Continued)	t. Gravel is remely to very subrounded throughout.				(18.50)	D	14	21.00 - 21.4 21.00 - 21	15	SPT N=: ,5/7,8,10				
						D	15	22.50 - 22.9 22.50 - 22	95	SPT N=(1,5/8,12,9				
						D	16	24.00 - 24.4 24.00 - 24	15	SPT N=4,8/9,9,10				
						D	17	25.50 - 25.9 25.50 - 25	95 SPT	N=50/2 10,15,16				
			<u>‡</u>			D	18	27.00 - 27.4 27.00 - 27	15	SPT N=4,9/9,12,9				
						D	19	28.50 - 28.9 28.50 - 28	05	SPT N=4,6/7,9,12				
		 			54.92 30.0		20	30.00 - 30.4						
REMARKS:		0.0015			HISELLIN Depth	Time				/ater S		S Casing		
 Engineer verified logged in general acc Area CAT scanned prior to excavation. 		su:2010.		From		Γaken	_	Date	Time S	trike	Level	Depth		
Groundwater encountered at 27.00m b Installed with HDPE standpipe to 30.00	gl.			NC	CHISELL	NG EN:	1	14-10-14	;	27.00	25.00			
				BOR	EHOLE DI	AMETE	R	CASING D	AMETER	DE	PTH SE	ALED		
				1:	50mm to 3	0.00m		150mm to	11.50m					
All measurements in metres	10m/page S	Scale: 1:62	2.50					National Gri		Pan	e 3 of 4			
unless otherwise stated Plant Used:	Coordinates / Level (mA			Logged		und Le\		Ordnance Checked By:	Datum	Approv				
Dando 2000	E: 524101.97		99.63	_39900	WC			W	0	F.5.5	SS			



Email: info@dei	tasimons.com													
Broadwater Road, W	<i>l</i> elwyn Gar	den C	City	Project No:	342.18	3	Hol	le ID:	E	3H4	115			
CABLE PERCUSSION	N BOREHOLE L	.OG		Date From / 13/10/2	To: 2014 - 14/10	0/2014	Clie		n Hill I	Devel	opme	nts Ltd		
DESCRIPTION OF STRAT	Α.	LCEND	WATER	CASING DEPTH /	REDUCED LEVEL/		Sam	ple Details		Te	est Resi	ults	Kfill	
DESCRIPTION OF STRATA		LEGEND	WA.	(Diam. mm)	DEPTH (Thickness)	TYPE	REF	· ·				Orive mm	Backfill Details	
Borehole complete at 30.00m bgl.			-					30.00 - 30	0.45		PT N=6 5/8,9,11			
			[
			[- -											
	,		[
			[- -											
			[
			- - -											
			[
	,		[- -											
			Ę I											
			[
			[
			<u> </u>											
			[-											
			<u> </u>											
			[[
			[
		30:2010. CHISELLING WATER LEVEL OBSERVATIONS												
	,		<u> </u>											
REMARKS:	·									\//	SERV	/ATIONS	Casina	
Engineer verified logged in general acc Area CAT scanned prior to excavation.	cordance to BS 5930	ე:2010.		From	To T	Taken	1		Time	St	rike	Level	Depth	
Groundwater encountered at 27.00m b Installed with HDPE standpipe to 30.00	gl.)m bgl.			N	CHISELLI	NG EN:	'	14-10-14		4	7.00	25.00		
l'				BOR	ADEK,	^METE	D	CASING D	NAME-	TER	DE	DTH SE	ALED.	
													ALLU	
All measurements in metres unless otherwise stated	10m/page So	Scale: 1:62	2.50					National Gr Ordnance		n	Page 4 of 4			
Plant Used: Dando 2000	Coordinates / Level (mAO E: 524101.97		 199 63	Logged	d By:	una 25.		Checked By:			Approv	ved By:		
		1: 84.92	00.00		WC			W	C			SS		

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012



Broadwater Road, W	Project No: 2342.18				Hole ID: BH416						
CABLE PERCUSSION	BOREHOLE	LOG	Date From / 21/10/2	To: 2014 - 22/10	/2014	Clie		Hill Deve	elopments Ltd		
		LEGEND WATER	CASING	REDUCED LEVEL/		Sam	ole Details	7	Test Results SPT N Value/Drive mm U=90/225mm CPT N=30 3,4/4,7,9,10 U=79/450mm SPT N=31 3,4/4,6,9,12 CPT N=45 5,7/8,10,13,14		
DESCRIPTION OF STRATA		LEGEND LAW	DEPTH / (Diam. mm)	DEDTH	TYPE	REF	Depth	Test Results	Backfill Details		
MADE GROUND: Dark brown sandy slight Gravel is angular to rounded fine to coarse brick. Sand is fine to coarse. Abundant roo 200mm.	e flint and rare			(0.60) 83.72 0.60	1	1	0.50				
Stiff orangey brown slightly sandy slightly of Gravel is angular to subrounded fine to cois fine to coarse. (LOWESTOFT FORMAT	arse flint. Sand				D U	2	1.00		-00/225mm		
is life to coarse. (LOWLOTOT TT ONWAY)	1014)			(2.50)	D	3	1.50 - 1.95 1.95 - 20.50		=90/225MM		
					В	1	2.50 - 2.95 2.50 - 2.				
0000		 		<i>81.22</i> 3.10	D	4	3.10				
Stiff brown slightly sandy CLAY. Sand is fir (LOWESTOFT FORMATION)	ne to medium.				U	2	3.50 - 3.95	U	=79/450mm		
				(1.50)	D	5	3.95 - 4.05				
Dense orangey brown fine to coarse SANI	D. Rare			79.72 4.60	D	6	4.50 - 4.95 4.50 - 4.5				
FORMATION)			(150mm)	(3.00) 76.72 7.60	В	2	6.00 - 6.45 6.00 - 6. 7.50 - 7.95 7.50 - 7.	5, 95	7/8,10,13,14 CPT N=28		
Medium dense to dense yellowy brown fine SAND. Rare subangular fine to coarse flin (KESGRAVE CATCHMENT SUBGROUP)	t gravel.			(1.80) 74.92 9.40	D	7	7.50 - 7.98 7 9.00 - 9.45 9.00 - 9.48		SPT N=41		
REMARKS:				HISELLING	ime			l V			
Engineer verified logged in general accordance. Area CAT scanned prior to excavation. Borehole remained dry on completion. Installed with HDPE standpipe to 13.50r		930:2010.	From		aken NG N: METE	:R	Date NO W CASING DIA 150mm to	AMETER	Strike Level	Depth	
All measurements in metres unless otherwise stated	10m/page	Scale: 1:62.50					National Grid Ordnance D		Page 1 of	2	
Plant Used: Dando 2000		AOD): .76 N: 213041.5 /el: 84.32	Logge	d By: WC		(Checked By: WC	;	Approved By:	3	



Broadwater Road, Welwyn Garden City					Project No: 2342.18				Hole ID: BH416						
CABLE PERCUSSION	BOREHOLE L	.OG		Date From / To: 21/10/2014 - 22/10/2014				Client: Spen Hill Developments Ltd							
		<u> </u>		CASING	REDUCE		Sam	ple Details		Test R	<u></u> ≅				
DESCRIPTION OF STRATA		LEGEND	WATER	DEPTH / (Diam. mm)	LEVEL/ DEPTH (Thickness	TYPE	REF	Depth	S	SPT N Valu	e/Drive mm	Backfill Details			
Medium dense orangey brown sandy angul subrounded fine to coarse flint GRAVEL. S coarse. Rare flint cobbles.(KESGRAVE CA SUBGROUP)(BH Continued)	and is fine to		<u> </u>		(3.20)	В	4	10.50 - 10. 10.50 - 1		CPT 3,4/4,					
				12.60	71.72 12.6	D	8	12.00 - 12. 12.00 - 1		CPT 4,5/4					
No recovery pushing flint cobble.			-		(0.80) 70.92 13.4	10									
Borehole terminated due to difficult condition bgl.	715 at 15.40III														
REMARKS : 1. Engineer verified logged in general acco	rdance to BS 593	0:2010.			HISELLIN Depth To	IG Time Taken		Date	Time	Wate	RVATIONS Standing Level	Casing			
 Area CAT scanned prior to excavation. Borehole remained dry on completion. Installed with HDPE standpipe to 13.50m 					CHISELL			ИО	WATE	RENCO	Level	Бора			
				BOR	EHOLE D	IAMETE	R	CASING D	JIAIVIE	IEK I	DEPTH SE	ALED			
									50						
All measurements in metres unless otherwise stated	10m/page S	Scale: 1:62	2.50					National G		Page 2 of 2					
Plant Used:	coordinates / Level (mAC		Logged By:				Checked By:		Approved By:						